

BIOCHEMICAL AND BIOPHYSICAL Research Communications

EDITORS

Ernesto Carafoli

Pedro Cuatrecasas

I. C. Gunsalus

Osamu Hayaishi

B. L. Horecker

M. Daniel Lane

William J. Lennarz

William D. McElroy

Claude Paoletti

William D. Phillips

Alberto Sols

Volume 150 • 1988



ACADEMIC PRESS, INC.

Harcourt Brace Jovanovich, Publishers

San Diego New York Boston
London Sydney Tokyo Toronto

Copyright © 1988 by Academic Press, Inc.

ALL RIGHTS RESERVED

No part of this publication may be reproduced or transmitted in any form, or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the copyright owner.

The appearance of the code at the bottom of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made for personal or internal use, or for the personal or internal use of specific clients. This consent is given on the condition, however, that the copier pay the stated per copy fee through the Copyright Clearance Center, Inc. (27 Congress Street, Salem, Massachusetts 01970), for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. Copy fees for pre-1988 articles are as shown on the article title pages; if no fee code appears on the title page, the copy fee is the same as for current articles.

0006-291X/88 \$1.50

MADE IN THE UNITED STATES OF AMERICA



BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS

CONTENTS

Volume 150, Number 1, January 15, 1988

AUTHOR INDEX, Volume 150, Number 1, January 15, 1988	ii
Immune Cytokine Inhibition of β -Adrenergic Agonist-Stimulated Cyclic AMP Generation in Cardiac Myocytes <i>Tod Gulick, Mina K. Chung, Stephen J. Pieper, George F. Schreiner, and Louis G. Lange</i>	1
Isolation and Partial Characterization of the Gene for Cytochrome P-450 3a (P-450 _{ALC}) and a Second Closely Related Gene <i>Shahrokh C. Khani, Todd D. Porter, and Minor J. Coon</i>	10
Siderophore Production by <i>Salmonella typhi</i> <i>Asma Ismail</i>	18
Peptide YY Receptors in the Brain <i>Akio Inui, Manabu Oya, Minoru Okita, Toru Inoue, Noriaki Sakatani, Hideki Morioka, Kozui Shii, Koichi Yokono, Nobuhiko Mizuno, and Shigeaki Baba</i>	25
Molecular Cloning of <i>Escherichia coli</i> K-12 <i>ggt</i> and Rapid Isolation of γ -Glutamyltranspeptidase <i>Hideyuki Suzuki, Hidehiko Kumagai, Takashi Echigo, and Tatsurokuro Tochikura</i>	33
Specificity of Oxygen Radical Scavengers and Assessment of Free Radical Scavenger Efficiency Using Luminol-Enhanced Chemiluminescence <i>Parinam S. Rao, John M. Luber, Jr., Joyce Milinowicz, Parviz Lalezari, and Hiltrud S. Mueller</i>	39
Reaction of Tissue-Type Plasminogen Activator with 4-Methylumbelliferyl-p-guanidinobenzoate Hydrochloride <i>Tetsumei Urano, Shoko Urano, and Francis J. Castellino</i>	45
Angiotensin II Induces Expression of the <i>c-fos</i> Gene through Protein Kinase C Activation and Calcium Ion Mobilization in Cultured Vascular Smooth Muscle Cells <i>Yasuhiro Kawahara, Michitoshi Sunako, Terutaka Tsuda, Hisashi Fukuzaki, Yasuo Fukumoto, and Yoshimi Takai</i>	52
Augmented Synthesis of β -Human Atrial Natriuretic Polypeptide in Human Failing Hearts <i>Akira Sugawara, Kazuwa Nakao, Narito Morii, Takayuki Yamada, Hiroshi Itoh, Shozo Shiono, Yoshihiko Saito, Masashi Mukoyama, Hiroshi Arai, Kazunobu Nishimura, Kenji Obata, Hirofumi Yasue, Toshihiko Ban, and Hiroo Imura</i>	60
Glu 46 of Ribonuclease T ₁ Is an Essential Residue for the Recognition of Guanine Base <i>S. Nishikawa, T. Kimura, H. Morioka, S. Uesugi, T. Hakoshima, K. Tomita, E. Ohtsuka, and M. Ikehara</i>	68
Amyloid β -Protein Gene Duplication Is Not Common in Alzheimer's Disease: Analysis by Polymorphic Restriction Fragments <i>Hirokazu Furuya, Hiroyuki Sasaki, Ikuo Goto, Caine W. Wong, George G. Glenner, and Yoshiyuki Sakaki</i>	75
Down Regulation of <i>c-myc</i> , <i>c-fos</i> , and <i>erb-B</i> during Estrogen-Induced Proliferation of the Chick Oviduct <i>Randall J. Cohrs, Biswendu B. Goswami, and Opendra K. Sharma</i>	82
Primary Structure of Nonspecific Cross-reacting Antigen (NCA), a Member of Carcinoembryonic Antigen (CEA) Gene Family, Deduced from cDNA Sequence <i>Yasunori Tawaragi, Shinzo Oikawa, Yuji Matsuoka, Goro Kosaki, and Hiroshi Nakazato</i>	89
Post-translational Modification of Interleukin 2 Is a Late Event during Activation of Human T Lymphocytes by Ionophore A23187 and Phorbol Ester <i>Harald S. Conradt, Hansjörg Hauser, Claudia Lorenz, Harald Mohr, and Annelore Plessing</i>	97
Monensin Is Obligatory for the Cytotoxic Action of a Disulfide-Linked Methotrexate-antitransferrin Receptor Conjugate <i>Vic Raso, Catherine Fehrmann, Vishnu C. Solan, and Andre Rosowsky</i>	104
The Human Docking Protein Does Not Associate with the Membrane of the Rough Endoplasmic Reticulum via a Signal or Insertion Sequence-Mediated Mechanism <i>Michael Hortsch and David I. Meyer</i>	111

Regulation of Diacylglycerol Kinase in the Transition from Quiescence to Proliferation in <i>Dictyostellium discoideum</i>	
Benilde Jimenez, Michiel M. Van Lookeren Campagne, Angel Pestaña, and Margarita Fernández-Renart	118
Modulation of Protein Kinase C Activity during Inhibition of Tumor Cell Growth by IFN- β and - γ	
Masahiko Ito, Yoshiyuki Takami, Fuminori Tanabe, Shiro Shigeta, Kazuo Tsukui, and Yoshimi Kawade	126
Partial Purification and Characterization of Hepatocyte Proliferation Stimulatory Factor from Liver of Rats Treated with D-Galactosamine	
Shoichi Suemori, Takaaki Eto, Kazuo Yamada, Toshio Nakamura, Toshio Nakanishi, and Goro Kajiyama	133
Impaired Secretion of Type III Procollagen in Ehlers-Danlos Syndrome Type IV Fibroblasts: Correction of the Defect by Incubation at Reduced Temperature and Demonstration of Subtle Alterations in the Triple-Helical Region of the Molecule	
Andrea Superti-Furga and Beat Steinmann	140
Distribution of Isoaccepting tRNAs and Codons for Proline and Glycine in Collagenous and Noncollagenous Chicken Tissues	
B. Ouenzar, B. Agoutin, F. Reinisch, D. Weill, F. Perin, G. Keith, and T. Heyman	148
Thioredoxin Fragment 31-36 Is Reduced by Dihydrolipoamide and Reduces Oxidized Protein	
Abraham Spector, Ruey-Ruey C. Huang, Guo-Zai Yan, and Ren-Rong Wang	156
Alterations of Protein Kinase Isozymes in Transplantable Human Lung Cancer with Special Reference to the Phosphorylation of Arylsulfatase B	
Mahmoud Balbaa, Shinsei Gasa, and Akira Makita	163
On the Mechanism of Binding of Calpastatin, the Protein Inhibitor of Calpains, to Biologic Membranes	
Ronald L. Mellgren	170
Differential Effects of 15-HPETE on Arachidonic Acid Metabolism in Collagen-Stimulated Human Platelets	
Harry R. Vedelago and Vhundi G. Mahadevappa	177
Polyamine Metabolism in an Obligately Alkalophilic <i>Bacillus alcalophilus</i> That Grows at pH 11.0	
Kuang Yu Chen and Suzanne Cheng	185
Progesterin Regulation of EGF-Receptor mRNA Accumulation in T-47D Human Breast Cancer Cells	
Leigh C. Murphy, Liam J. Murphy, and Robert P. C. Shiu	192
Phosphorylation of Phosphoprotein Phosphatase Inhibitor-2 (I-2) in Rat Fat Cells	
J. C. Lawrence, Jr., Jeffrey Hiken, Barry Burnette, and A. A. DePaoli-Roach	197
Regulation of Murine α -, β -Major-, and β -Minor-Globin Gene Expression	
Nadine Weich, Paul A. Marks, and Richard A. Rifkind	204
Calcium-Mediated Hemagglutination by Serum Amyloid P Component and the Inhibition by Specific Glycosaminoglycans	
Hideaki Hamazaki	212
Frequency in Hypertensives of Alleles for a RFLP Associated with the Renin Gene	
Brian J. Morris and Lyn R. Griffiths	219
A New Prostaglandin E1 Analog (TFC-612) Prevents a Decrease in Motor Nerve Conduction Velocity in Streptozocin-Diabetic Rats	
Hitoshi Yasuda, Masanobu Sonobe, Ikuo Hatanaka, Makio Yamashita, Yasufumi Miyamoto, Masahiko Terada, Masanori Amenomori, Ryuichi Kikkawa, Yukio Shigeta, Yukio Motoyama, and Noriyuki Saito	225
Two New Hormones: Prohormone Atrial Natriuretic Peptides 1-30 and 31-67 Circulate in Man	
Chris J. Winters, Alan L. Sallman, Jane Meadows, David M. Rico, and David L. Vesely	231
Different Molecular Weight Forms of Opioid Receptors Revealed by Polyclonal Antibodies	
S. Roy, Y. X. Zhu, N. M. Lee, and H. H. Loh	237
Solution and Membrane Structure of Enkephalins as Studied by Infrared Spectroscopy	
Witold K. Surewicz and Henry H. Mantsch	245
Copper(II)ethylenediaminetetraacetate Does Disproportionate Superoxide	
William M. Willingham and John R. J. Sorenson	252
<i>n</i> -Butyrate Increases <i>c-erb A</i> Oncogene Expression in Human Colon Fibroblasts	
Rebecca S. Bahn, Jay C. Zeller, and Terry J. Smith	259
Increase of (Ca ²⁺ +Mg ²⁺)-ATPase Activity of Renal Basolateral Membrane by Parathyroid Hormone via Cyclic AMP-Dependent Membrane Phosphorylation	
Kazuyuki Itoh, Shigeto Morimoto, Tsunehito Shiraishi, Kazuhisa Taniguchi, Toshio Onishi, and Yuichi Kumahara	263

Alkylacylglycerol Molecular Species in the Glycosylinositol Phospholipid Membrane Anchor of Bovine Erythrocyte Acetylcholinesterase	
<i>William L. Roberts, John J. Myher, Arnis Kuksis, and Terrone L. Rosenberry</i>	271
Activation of S ₆ Kinase in Cultured Vascular Smooth Muscle Cells by Submitogenic Levels of Thrombospondin	
<i>Timothy Scott-Burden, Thérèse J. Resink, Ursula Baur, Maria Bürgin, and Fritz R. Bühler</i>	278
TSH Regulation of Ferritin H-Chain Messenger RNA Levels in Rat Thyroids	
<i>Matilde Valeria Ursini and Vittorio de Franciscis</i>	287
Selective Inhibition of Proteins Synthesized from Different mRNA Species in Reticulocyte Lysates Containing L-Pyrroline-5-carboxylic Acid	
<i>Steven J. Mick, Robert E. Thach, and Curt H. Hagedorn</i>	296
Molecular Regulation of Ethanol-Inducible Cytochrome P-450-1IE1 in Hamsters	
<i>Shinji Kubota, Jerome M. Lasker, and Charles S. Lieber</i>	304
Aromatization and 19-Hydroxylation of Androgens by Rat Brain Cytochrome P-450	
<i>Shinichi Miyairi, Osamu Sugita, Shigeru Sassa, and Jack Fishman</i>	311
Histamine H ₁ -Receptor in the Retina: Species Differences	
<i>Sadako Sawai, Nai Ping Wang, Hiroyuki Fukui, Masakatsu Fukuda, Reizo Manabe, and Hiroshi Wada</i>	316
Cholera Toxin Affects Nuclear ADP-Ribosylation in GH1 Cells	
<i>Ana Aranda, Angel Pascual, Richard Copp, and Herbert Samuels</i>	323
Isolation and Characterization of a Novel 39-kDa Whey Protein from Bovine Mammary Secretions Collected during the Nonlactating Period	
<i>J. J. Rejman and W. L. Hurley</i>	329
Fungal Mycelia as a Novel Source of Eicosapentaenoic Acid. Activation of Enzyme(s) Involved in Eicosapentaenoic Acid Production at Low Temperature	
<i>Sakayu Shimizu, Yoshifumi Shinmen, Hiroshi Kawashima, Kengo Akimoto, and Hideaki Yamada</i>	335
Inhibitors of the Sulfation of Proteins, Glycoproteins, and Proteoglycans	
<i>Glen L. Hortin, Mary Schilling, and James P. Graham</i>	342
Comparative Effects of Interleukin 1 and a Phorbol Ester on Rheumatoid Synovial Cell Fructose 2,6-Bisphosphate Content and Prostaglandin E Production	
<i>David J. Taylor, John M. Evanson, and David E. Woolley</i>	349
Activation of Phospholipase D by Chemotactic Peptide in HL-60 Granulocytes	
<i>Jin-Keon Pai, Marvin I. Siegel, Robert W. Egan, and M. Motasim Billah</i>	355
Regulation of Lactate/Pyruvate Ratios by Cyclic AMP in <i>Neurospora crassa</i>	
<i>Martin L. Pall and Carla K. Robertson</i>	365
Prediction of Signal Sequence-Dependent Protein Translocation in Bacteria: Assessment of the <i>Escherichia coli</i> Minicell System	
<i>David B. Davies, Mohamed Shohayeb, and Ian Chopra</i>	371
Arachidonate 15-Lipoxygenase from Human Eosinophil-Enriched Leukocytes: Partial Purification and Properties	
<i>Elliott Sigal, Dorit Grunberger, John R. Cashman, Charles S. Craik, George H. Caughey, and Jay A. Nadel</i>	376
Conformational Change on Calcium Binding by the Lipopeptide Antibiotic Amphomycin. A C.D. and Monolayer Study	
<i>J. H. Lakey, R. Maget-Dana, and M. Ptak</i>	384
Determination of the Effect of Acetylation of Specific Lysine Residues in Human Growth Hormone on Its Affinity for Somatogenic Receptors by an Affinity Selection Technique	
<i>Liew-Cheng Teh and George E. Chapman</i>	391
Noncyclic Photoreductive Carbon Fixation in Photosynthesis. Light and Dark Transients of the Glycerate-3-P Special Pair	
<i>Francis K. Fong and Karen A. Butcher</i>	399
A Magnesium-Dependent Guanylate Cyclase in Cell-Free Preparations of <i>Dictyostelium discoideum</i>	
<i>Pim M. W. Janssens and Corina C. C. de Jong</i>	405
Expression of Epidermal Growth Factor Receptor Proto-Oncogene mRNA in Regenerating Rat Liver	
<i>Alfred C. Johnson, Susan H. Garfield, Glenn T. Merlino, and Ira Pastan</i>	412
Dual Effect of Glucose on Cytoplasmic Ca ²⁺ in Single Pancreatic β -Cells	
<i>Eva Grapengiesser, Erik Gylfe, and Bo Hellman</i>	419
Localization of the Active Center of Microsomal Cytochrome P-450	
<i>Arkadii G. Krainev, Lev M. Weiner, Ivan S. Alferyev, and Nikolai V. Mikhalin</i>	426
Ligand-Dependent Maintenance of Ethanol-Inducible Cytochrome P-450 in Primary Rat Hepatocyte Cell Cultures	
<i>Erik Eliasson, Inger Johansson, and Magnus Ingelman-Sundberg</i>	436

Proton NMR Studies of the GDP•MG ²⁺ Complex of the Ha-ras Oncogene Product p21 <i>Ilme Schlichting, Alfred Wittinghofer, and Paul Rösch</i>	444
Different Mechanisms for the Receptor-Mediated Antimineralocorticoid Action of Two New Spirolactone Derivatives <i>M. K. Agarwal and M. Kalimi</i>	449
Adrenocortical Pregnenolone-Binding Protein: Identification and Antibody Development <i>Young J. C. Lee and Charles A. Strott</i>	456
Similarity between the Estrogen Receptor and the DNA-Binding Domain of the Tetracycline Repressor <i>Michael E. Baker</i>	463
Membrane-Stabilizing Effect of Vitamin E: Effect of α -Tocopherol and Its Model Compounds on Fluidity of Lecithin Liposomes <i>Shiro Urano, Keiko Yano, and Mitsuyoshi Matsuo</i>	469
Identification of an Acid-Lipase in Human Serum Which Is Capable of Solubilizing Glycophosphatidylinositol-Anchored Proteins <i>M. Lucia Cardoso de Almeida, Mervyn J. Turner, Boris B. Stambuk, and Sergio Schenkman</i>	476
Purification and Characterization of Placental Protein 5 <i>Ralf Bützow, Marja-Liisa Huhtala, Hans Bohn, Ismo Virtanen, and Markku Seppälä</i>	483
S-Adenosyl-L-methionine Protects the Hippocampal CA1 Neurons from Ischemic Neuronal Death in Rats <i>Hiromi Sato, Hisayo Hariyama, and Koei Moriguchi</i>	491
Inhibition of Natural Killer Cell Activity by Eicosapentaenoic Acid <i>in Vivo</i> and <i>in Vitro</i> <i>Naohiro Yamashita, Eiji Sugiyama, Tomohito Hamazaki, and Saburo Yano</i>	497
Renotropic Activity of Lutropin: Direct Stimulation of DNA Synthesis of Cultured Rat Renal Cortical Cells <i>Kaoru Nomura, Nobuo Horiba, Yuko Sato, Makoto Ujihara, Hiroshi Demura, and Kazuo Shizume</i>	506
Identification of [Hydroxyproline ³]-lysyl-bradykinin Released from Human Plasma Protein by Kallikrein <i>Manabu Sasaguri, Masaharu Ikeda, Munehito Ideishi, and Kikuo Arakawa</i>	511

Volume 150, Number 2, January 29, 1988

AUTHOR INDEX, Volume 150, Number 2, January 29, 1988	ii
Differential Enzymatic Accessibilities of the 5' and 3' Splice Sites of β -Globin Pre- messenger RNA in Splicing Competent HeLa Cell Nuclear Extract <i>Clay B. Siegall and Ajit Kumar</i>	517
Protein Kinase C-Dependent Phosphorylation of Profilin Is Specifically Stimulated by Phosphatidylinositol Bisphosphate (PIP ₂) <i>Anders Hansson, Göran Skoglund, Ingrid Lassing, Uno Lindberg, and Magnus Ingelman-Sundberg</i>	526
Temporal Association of Calcium Mobilization, Inositol Trisphosphate Generation, and Superoxide Anion Release by Human Neutrophils Activated by Serum Opsonized and Nonopsonized Particulate Stimuli <i>T. Meshulam, R. D. Diamond, C. A. Lyman, D. R. Wysong, and D. A. Meinick</i>	532
Novel Feature of Expression of the Sarcotoxin IA Gene in Development of <i>Sarcophaga peregrina</i> <i>Rika Nanbu, Yuki Nakajima, Keiichi Ando, and Shunji Natori</i>	540
The Weak Immunosuppressant Cyclosporin D as Well as the Immunologically Inactive Cyclosporine H Are Potent Inhibitors <i>in Vivo</i> of Phorbol Ester TPA-Induced Biological Effects in Mouse Skin and of Ca ²⁺ /Calmodulin Dependent EF-2 Phosphorylation <i>in Vitro</i> <i>M. Gschwendt, W. Kitzstein, and F. Marks</i>	545
A Two Dimensional ¹ H NMR Study of the Solution Conformation of Gastrin Releasing Peptide <i>John A. Carver</i>	552
1-Palmitoyl-2-thiopalmitoyl Phosphatidylcholine, a Highly Specific Chromogenic Substrate of Phospholipase A ₂ <i>Caroline Balet, Kelly A. Clingman, and Joseph Hajdu</i>	561
Hypoxic Damage Generates Reactive Oxygen Species in Isolated Perfused Rat Liver <i>Hartmut Jaeschke, Charles V. Smith, and Jerry R. Mitchell</i>	568

Transforming Growth Factor β Activates Protein Kinase C in Microvessels Isolated from Immature Rat Brain	<i>Jasna Markovac and Gary W. Goldstein</i>	575
Insulin Action on Brain Microvessels: Effect on Alkaline Phosphatase	<i>R. E. Catalán, A. M. Martínez, M. D. Aragonés, B. G. Miguel, and A. Robles</i>	583
Chromosome 5 Allele Loss at the Glucocorticoid Receptor Locus in Human Colorectal Carcinomas	<i>David M. Wildrick and Bruce M. Boman</i>	591
Heterogeneity of Immunoreactive Prolactin in the Rat Brain	<i>William J. DeVito</i>	599
Insulin-Degrading Enzyme Is Capable of Degrading Receptor-Bound Insulin	<i>Kazuyoshi Yonezawa, Koichi Yokono, Kozui Shii, Joji Hari, Shinji Yaso, Kazuhiko Amano, Taizo Sakamoto, Yoshito Kawase, Hiroyuki Akiyama, Masao Nagata, and Shigeaki Baba</i>	605
Stimulation of DNA Synthesis in Murine Lymphocytes by the Drug Swainsonine: Immunomodulatory Properties	<i>Sandra L. White, Karen Schweitzer, Martin J. Humphries, and Kenneth Olden</i>	615
DL-myo-Inositol 1,4,5-Trisphosphorothioate Mobilizes Intracellular Calcium in Swiss 3T3 Cells and <i>Xenopus</i> Oocytes	<i>Colin W. Taylor, Michael J. Berridge, Kenneth D. Brown, Allan M. Cooke, and Barry V. L. Potter</i>	626
Fluorescence Studies on Clupein Protamines: Evidence for Globular Conformation	<i>Alejandro Arellano, Mauricio Canales, Carolina Jullian, and Juan E. Brunet</i>	633
Seed-Transmissible Expression of Mammalian Metallothionein in Transgenic Tobacco	<i>Indu B. Maiti, Arthur G. Hunt, and George J. Wagner</i>	640
Characterization of a Competitive and Reversible Ligand to E2 Conformation of Na, K ATPase Molecule	<i>Albert L. Rauch and Vardaman M. Buckalew, Jr.</i>	648
Molecular Analysis of Alcohol Dehydrogenase Electromorphs in Wild Type and Transformed <i>Drosophila melanogaster</i>	<i>Mark A. Batzer, Trent D. Desselle, Mark D. Brennan, William R. Lee, and Bruce Tedeschi</i>	655
Receptor Density and cAMP Accumulation: Analysis in CHO Cells Exhibiting Stable Expression of a cDNA That Encodes the β_2 -Adrenergic Receptor	<i>Shaji T. George, Miguel Berrios, John R. Hadcock, Hsien-yu Wang, and Craig C. Malbon</i>	665
Sialic Acid Is Selectively Involved in the Interaction of Agonists with M ₂ Muscarinic Acetylcholine Receptors	<i>Jean-Pierre Gies and Yves Landry</i>	673
Carbachol Partially Inhibits the Plasma Membrane Ca^{2+} -Pump in Microsomes from Pig Stomach Smooth Muscle	<i>L. Missiaen, Y. Kanmura, F. Wuytack, and R. Casteels</i>	681
A Novel Glucosyltransferase from <i>Streptococcus mutans</i> Produces Oligo-isomaltosaccharides	<i>Yoshihisa Yamashita, Nobuhiro Hanada, and Tadamichi Takehara</i>	687
Reversal of Insulin-Induced Negative Cooperativity by Monoclonal Antibodies That Stabilize the Slowly Dissociating ("K _{super} ") State of the Insulin Receptor	<i>Jia-Li Gu, Ira D. Goldfine, John R. Forsayeth, and Pierre De Meyts</i>	694
Purification to Homogeneity and Biochemical Characterization of Two Suppressor Factors from Human Malignant T-Cells	<i>M. Ponzoni, P. G. Montaldo, M. Lanciotti, E. Castagnola, C. Cirillo, and P. Cornaglia-Ferraris</i>	702
Modulation of c-myc by Transforming Growth Factor- β in Human Colon Carcinoma Cells	<i>Kathleen M. Mulder, Alan E. Levine, Xochil Hernandez, Mary K. McKnight, Diane E. Brattain, and Michael G. Brattain</i>	711
Expression of Heme Oxygenase Gene in Rat and Human Liver	<i>Nader G. Abraham, Jane H-C. Lin, Steve M. Mitrione, Michal L. Schwartzman, Richard D. Levere, and Shigeki Shibahara</i>	717
Serum Contains a Macromolecular Effector Promoting the Synthesis of Nerve Growth Factor (NGF) in L Cells	<i>Rémi Houlgatte, Didier Wion, and Philippe Brachet</i>	723
Probing of DNA Polymorphic Structure in the Cell with Osmium Tetroxide	<i>E. Paleček, E. Rašovská, and P. Boublíková</i>	731
DNA Hypomethylation in Ethionine-Induced Rat Preneoplastic Hepatocyte Nodules	<i>Darja Kanduc, Amit Ghoshal, Ernesto Quagliariello, and Emmanuel Farber</i>	739
Cytochalasin E Enhances the Protein Kinase C-Dependent Process of Secretion	<i>A. Chadwick Cox</i>	745
The use of a Genetically Engineered Tryptophan to Identify the Movement of a Domain of <i>Bacillus stearothermophilus</i> Lactate Dehydrogenase with the Process Which		

Limits the Steady-State Turnover of the Enzyme	
A. D. B. Waldman, K. W. Hart, A. R. Clarke, D. B. Wigley, D. A. Barstow, T. Atkinson, W. N. Chia, and J. J. Holbrook	752
Analysis of Cellular Expression of Gangliosides by Gene Transfection. I. GD3 Expression in <i>myc</i> -Transfected and Transformed 3Y1 Correlates with Anchorage- Independent Growth Activity	
Hitoshi Nakaishi, Yutaka Sanai, Kazuko Shiroki, and Yoshitaka Nagai	760
Analysis of Cellular Expression of Gangliosides by Gene Transfection. II. Rat 3Y1 Cells Transformed with Several DNAs Containing Oncogenes (<i>fes</i> , <i>fps</i> , <i>ras</i> , and <i>src</i>) Invariably Express Sialosylparagloboside	
Hitoshi Nakaishi, Yutaka Sanai, Masabumi Shibuya, and Yoshitaka Nagai	766
Characterization of Monoclonal Antibodies CBL3 and TT62 with Differing Antigenic Determinants Specific for Isolated Human Islets	
Patrick Soon-Shiong, Roswitha Heintz, and Paul Terasaki	775
Bovine Adrenal Medullary Cells Contain Functional Atrial Natriuretic Peptide Receptors	
S. Heisler and E. Morrier	781
Detection of Proenzyme Form of S-Adenosylmethionine Decarboxylase in Extracts from Rat Prostate	
Anthony E. Pegg, Laurie Wiest, and Antti Pajunen	788
Human Lysozyme: Sequencing of a cDNA, and Expression and Secretion by <i>Saccharomyces cerevisiae</i>	
Koji Yoshimura, Asae Toibana, and Kazuo Nakahama	794
Lipid Peroxidation Inhibits Norepinephrine-Stimulated Lipolysis in Rat Adipocytes: Reduction of β -Adrenoceptor Number	
Magdalena Rejholcová, Jiří Wilhelm, and Petr Svoboda	802
Molecular Cloning and DNA Sequence Analysis of the Human Guanine Nucleotide- Binding Protein G α	
Sukadev Lavu, Jeff Clark, Rupendra Swarup, Kouji Matsushima, Kondiah Paturu, Joel Moss, and Hsiang-Fu Kung	811
Properties of Component X of Rat Heart Pyruvate Dehydrogenase Complex	
Sadayuki Matuda, Kyoko Nakano, Izumi Tabata, Seiji Matuo, and Takeyori Saheki	816
Tin-Protoporphyrin Inhibits Heme Oxygenase and Prevents the Decline in Hepatic Heme and Cytochrome P-450 Contents Produced in Nude Mice by Tumor Transplantation	
Paul S. Wissel, Richard A. Galbraith, Shigeru Sassa, and Attallah Kappas	822
S-Oxalylglutathione Is a Substrate for γ -Glutamyltransferase (GGT): Implications for the Role of GGT in Cell Proliferation	
Gordon A. Hamilton, David J. Buckthal, Nancy J. Kantorczyk, and Stephen S. Skorzczynski	828
<i>In Vitro</i> and <i>in Vivo</i> DNA Interaction with Carbonyl-Labeled (M)ethylnitrosoureas	
Darja Kanduc and Ernesto Quagliariello	835
Pertussis Toxin Inhibits Angiotensin II-Mediated Phosphatidylinositol Breakdown and ADP-Ribosylates a 40 kDa Protein in Cultured Smooth Muscle Cells	
Gisela Gaul, Peter Gierschik, and Dieter Marmé	841
Demonstration of the Presence of G-Proteins in Hepatic Microsomal Fraction	
Juan Codina, Satoshi Kimura, and Naomi Kraus-Friedmann with the assistance of Sandra Higham	848
Expression of Hepatic Microsomal Cholesterol 7 α -Hydroxylase Activity in Lean and Obese Zucker Rats	
Pauline M. Tang, Judith A. Finkelstein, and John Y. L. Chiang	853
Oxygen Limitation Induces Indirectly the Synthesis of Cytochrome P-450 mRNA in Alkane-Growing <i>Candida maltosa</i>	
Brigitte Wiedmann, Martin Wiedmann, Stephan Mauersberger, Wolf-Hagen Schunck, and Hans-Georg Müller	859
An Oxygen Enhancement Ratio in an <i>Escherichia coli</i> Strain Lacking Both the Iron and Manganese Superoxide Dismutases	
M. L. Morse, Daniele Touati, and Diana S. Smith	866
Formation of Lipoxins by Alveolar Macrophages	
Sang Joo Kim	870
Erythromycin and Its Derivatives with Motilin-like Biological Activities Inhibit the Specific Binding of ¹²⁵ I-Motilin to Duodenal Muscle	
Yoichi Kondo, Keiko Torii, Satoshi Omura, and Zen Itoh	877
Antibodies against Viral Proteins Can Be Produced Effectively in Response to the Increased Uptake of α_2 -Macroglobulin: Viral Protein Conjugate by Macrophages	
Toshiya Osada, Nobuhiro Noro, Yoichiro Kuroda, and Atsushi Ikai	883

Identification of a Phosphatidylcholine Active Phospholipase C in Human Gallbladder Bile	N. R. Pattinson	890
--	-----------------	-----

ERRATUM

Volume 148, Number 3, November 13, 1987: Albert Ferrer, Carme Caelles, and Fausto G. Hegardt, "Reaction of 5'- <i>p</i> -Fluorosulfonylbenzoyladenine with the Catalytic and AMP Allosteric Sites of Microsomal HMG-CoA Reductase Kinase," pp. 1009-1016		897
--	--	-----

Volume 150, Number 3, February 15, 1988

AUTHOR INDEX, Volume 150, Number 3, February 15, 1988		iii
Presence of Guanine Nucleotide-Binding Proteins in a Plant Hypocotyl Microsomal Fraction	B. K. Drøbak, E. F. Allan, J. G. Comerford, K. Roberts, and A. P. Dawson	899
Identification of a cDNA Clone for the β -Subunit of the Pyruvate Dehydrogenase Component of Human Pyruvate Dehydrogenase Complex	L. Ho, A. A. Javed, R. A. Pepin, T. J. Thekkumkara, C. Raefsky, J. E. Mole, A. M. Caliendo, M. S. Kwon, D. S. Kerr, and M. S. Patel	904
<i>Cerastes cerastes</i> (Egyptian Sand Viper) Venom Induced Platelet Aggregation as Compared to Other Agonists	Gerald Soslaw, M. Farid El-Asmar, and Janet Parker	909
Characterization of a Photoaffinity Analog of UTP, 5-Azido-UTP for Analysis of the Substrate Binding Site on <i>Escherichia coli</i> RNA Polymerase	A-Young M. Woody, Robert K. Evans, and Robert W. Woody	917
Immunochemical Detection of Cytochrome P-450 _{C-M/F} and NADPH-Cytochrome P-450 Reductase in Rat Liver and Kidney	Osamu Sugita, Kazuo Nagashima, Shigeru Sassa, and Attallah Kappas	925
Carboxyethyl γ -Aminobutyric Acid, a Polyamine Derivative, Improves the Recovery of EBV-Transformed Lymphocytes	Antonella Cerino, Marco Bestagno, Marco Colonna, Fernando Fussi, and Giulia C. B. Astaldi Ricotti	931
NIH-3T3 Cells Expressing High Levels of the <i>c-ras</i> Proto-Oncogene Display Reduced Platelet Derived Growth Factor-Stimulated Phospholipase Activity	P. L. Olinger and R. R. Gorman	937
Mechanism of Inactivation of γ -Aminobutyric Acid Aminotransferase by (S,E)-4-Amino-5-fluoropent-2-enoic Acid	Richard B. Silverman and Cherian George	942
Inhibition of Protein Synthesis by Aminoglycoside Antibiotics in Polyamine-Requiring Bacteria	H. G. Nastri and I. D. Algranati	947
Fluoride Can Activate the Respiratory Burst Independently of Ca^{2+} , Stimulation of Phosphoinositide Turnover, and Protein Kinase C Translocation in Primed Human Neutrophils	Vittorina Della Bianca, Mirosława Grzeskowiak, Stefano Dusi, and Filippo Rossi	955
The Mechanism of Action of DuP 721, a New Antibacterial Agent: Effects on Macromolecular Synthesis	D. C. Eustice, P. A. Feldman and A. M. Slee	965
Potential Anticoagulant Activity of Lipocortins and Other Calcium/Phospholipid Binding Proteins	Hugues Chap, Paul Comfurius, Edouard M. Bevers, Josette Fauvel, Patricia Vicendo, Louis Douste-Blazy, and Robert F. A. Zwaal	972
tRNA ^{Phe} and tRNA ^{Pro} Are the Near-Ultraviolet Molecular Targets Triggering the Growth Delay Effect	M. O. Blondel and A. Favre	979
Covalent Change in α Crystallin during Human Senile Cataractogenesis	L. Takemoto, D. Granstrom, T. Kodama, and R. Wong	987
Active Site Model of Cytochrome P-450 LM2	W. Schwarze, J. Jaeger, G. R. Jänig, and K. Ruckpaul	996

Vimentin, a Cytoskeletal Substrate of Protein Kinase C	
<i>Chi-Kuang Huang, James F. Devanney, and Scott P. Kennedy</i>	1006
Nonenzymatic Inhibitors of Coagulation and Platelet Aggregation from <i>Naja nigricollis</i> Venom Are Cardiotoxins	
<i>R. Manjunatha Kini, Nancy C. Haar, and Herbert J. Evans</i>	1012
Solid Phase Synthesis of a GHRP Analog Containing C-terminal Thioamide Group	
<i>Zs. Majer, M. Zewdu, M. Hollósi, J. Seprödi, Zs. Vadász, and I. Teplán</i>	1017
Inositol 1,4,5-Trisphosphate-Induced Calcium Release from Platelet Plasma Membrane Vesicles	
<i>Appavoo Rengasamy and Harold Feinberg</i>	1021
Radiobrominated <i>m</i> -Tyrosine Analog as Potential CNS L-Dopa PET Tracer	
<i>O. T. De Jesus and J. Mukherjee</i>	1027
The Site of Action of Six Different Ribosome-Inactivating Proteins from Plants on Eukaryotic Ribosomes: The RNA N-Glycosidase Activity of the Proteins	
<i>Yaeta Endo, Kunio Tsurugi, and John M. Lambert</i>	1032
Quantitative Aspects of the Feeder Cell Phenomenon: Mechanistic Implications	
<i>Stephen B. Pruett and Johnathan L. Kiel</i>	1037
Electron Self-Exchange in <i>Pseudomonas</i> Cytochromes	
<i>Russell Timkovich, Ming Li Cai, and Dabney White Dixon</i>	1044
Properties of Structure and Interaction of the Receptor for ω -Conotoxin, a Polypeptide Active on Ca^{2+} Channels	
<i>Jacques Barhanin, Annie Schmid, and Michel Lazdunski</i>	1051
Effect of Fish Oils on Rat Plasma Lipoproteins	
<i>Daniel Belcher, William Stillwell, Carol A. Langsford, and Stephen R. Wassall</i>	1063
Developmental and Sexual Differences of T-Kininogen Levels in Rat Plasma and Liver	
<i>Sachiko Oh-ishi, Izumi Hayashi, Atsushi Kusunoki, Yoshinao Nagashima, Masahiko Hayashi, Kohji Yamaki, Iku Utsunomiya, and Akiko Yamasu</i>	1069
Feeding of Lovastatin to Rats Increases the Activity of the Hepatic Mitochondrial Outer Carnitine Palmitoyltransferase	
<i>George A. Cook, Bobby Khan, and Murray Heimberg</i>	1077
Sequence of the Signal Peptide for Rat Liver Mitochondrial Aldehyde Dehydrogenase	
<i>Jaume Farrés, Kun-Liang Guan, and Henry Weiner</i>	1083
Inactivation of Fructose-1,6-bisphosphatase by <i>o</i> -Phthalaldehyde	
<i>Rajinder N. Puri and Robert Roskoski, Jr.</i>	1088
Enrichment and Initial Characterization of the Solubilized Receptor for Mouse γ Interferon	
<i>Mark P. Hayes, Stephen W. Russell, Paul P. Trotta, and Mitali Basu</i>	1096
Site-Specific Mutagenesis of the Human Interleukin-1 β Gene: Structure-Function Analysis of the Cysteine Residues	
<i>Takashi Kamogashira, Yoshihiro Masui, Yasukazu Ohmoto, Tohru Hirato, Kenji Nagamura, Keiko Mizuno, Yoeng-Man Hong, Yoshikazu Kikumoto, Satoru Nakai, and Yoshikatsu Hirai</i>	1106
Effect of Phorbol Ester on Contractile Response of Aorta from Endotoxic Rats	
<i>Ichiro Wakabayashi, Eizo Kakishita, Katsuhiko Hatake, Shigeru Hishida, and Kiyoyasu Nagai</i>	1115
Subcellular Distribution and Isoelectric Heterogeneity of the Substrate for ADP-Ribosyltransferase from <i>Clostridium botulinum</i>	
<i>Shuh Narumiya, Narito Morii, Kouji Ohno, Yasuhiro Ohashi, and Motohatsu Fujiwara</i>	1122
Distinction between Malignant and Normal Breast Tissue Based on Endogenous Mediators of Estradiol Binding	
<i>Jerry H. Fishman and Jack Fishman</i>	1131
1,25-Dihydroxyvitamin D $_3$ Stimulates Ca-ATPase in a Vascular Smooth Muscle Cell Line	
<i>Hiroyuki Kawashima</i>	1138
Cyclic AMP Control of GTP Pools in <i>Saccharomyces cerevisiae</i>	
<i>Martin L. Pall</i>	1144
Thiol Exchange Reactions Involving Selenotrisulfides	
<i>T. Nakagawa, E. Aoyama, N. Kobayashi, H. Tanaka, M. Chikuma, H. Sakurai, and M. Nakayama</i>	1149
Giant Polypeptides of Skeletal Muscle Titin: Sedimentation Equilibrium in Guanidine Hydrochloride	
<i>Gary P. Kurzban and Kuan Wang</i>	1155
Rearrangement of Nuclear Calmodulin during Proliferative Liver Cell Activation	
<i>Joan Serratos, M. Jesus Pujol, Oriol Bachs, and Ernesto Carafoli</i>	1162
Specific Receptors for Thromboxane A $_2$ in Cultured Vascular Smooth Muscle Cells of Rat Aorta	
<i>Kohji Hanasaki, Kazumi Nakano, Hisanori Kasai, Hitoshi Arita, Kohichi Ohtani, and Masami Doteuchi</i>	1170
Insulin-Stimulated Serine Kinase in <i>Xenopus</i> Oocyte Plasma Membrane	
<i>Youichirou Sakanoue, Eikichi Hashimoto, Shun-ichi Nakamura, and Hirohei Yamamura</i>	1176

Dissociation of c-fos from ODC Expression and Neuronal Differentiation in a PC12 Subline Stably Transfected with an Inducible N-ras Oncogene	<i>Isabel Guerrero, Angel Pellicer, and David E. Burstein</i>	1185
1,25-Dihydroxyvitamin D Stimulates Sodium-Dependent Phosphate Transport by Renal Outer Cortical Brush-Border Membrane Vesicles by Directly Affecting Membrane Fluidity	<i>Makoto Suzuki, Yoshindo Kawaguchi, Mitsuo Momose, Takasi Morita, Keitarou Yokoyama, and Tadashi Miyahara</i>	1193
Identification of T-Kinin-Leu (T-Kinin-Containing Peptide) Released from T-Kininogen by Cathepsin D of Granulomatous Tissues in Rats	<i>Wataru Sakamoto, Fumihiko Satoh, Shigeki Nagasawa, and Hiroshi Handa</i>	1199
Inhibition of Early Platelet-Derived Growth Factor Responses in BALB/c-3T3 Cells by Interferon	<i>M. Zagari, J. R. Hepler, C. Harris, and B. Herman</i>	1207
(±)-trans-2-(3-Methoxy-5-methylsulfonyl-4-propoxyphenyl)-5-(3,4,5-trimethoxyphenyl) tetrahydrofuran (L-659,989), a Novel, Potent PAF Receptor Antagonist	<i>Mitree M. Ponpipom, San-Bao Hwang, Thomas W. Doebber, John J. Acton, Alfred W. Alberts, Tesfaye Biftu, David R. Brooker, Robert L. Bugianesi, John C. Chabala, Nancy L. Gamble, Donald W. Graham, My-Hanh Lam, and Margaret S. Wu</i>	1213
RU 486 Stabilizes a High Molecular Weight Form of the Glucocorticoid Receptor Containing the 90K Non-steroid Binding Protein in Intact Thymus Cells	<i>Philippe Lefebvre, Pierre Formstecher, Claude Richard, and Michel Dautrevaux</i>	1221
Protease Peptone Enhances Production of Tissue-Type Plasminogen Activator from Human Diploid Fibroblasts	<i>Akio Hasegawa, Hitoshi Yamashita, Shuhei Kondo, Takao Kiyota, Hiroshi Hayashi, Hideo Yoshizaki, Akira Murakami, Masami Shiratsuchi, and Toshihito Mori</i>	1230
Cloning and Sequence Analysis of a cDNA for Lymphocyte Proliferation Potentiating Factor of Rabbit Polymorphonuclear Leukocytes: Identification as Rabbit Interleukin 1β	<i>Shunsuke Mori, Fumimasa Goto, Kumiko Goto, Susumu Ohkawara, Shuichi Maeda, Kazunori Shimada, and Masaru Yoshinaga</i>	1237
Three-α-Helical Coiled-Coil, as a Proposed Model for a Thin Rod Segment of Bacteriophage T3 Tail Fibers	<i>Sho Takahashi and Tatsuo Ooi</i>	1244
Effect of Synthetic Human Cholecystokinin-33 on Exocrine Pancrease	<i>Ryuichiro Doi, Kazutomo Inoue, Masafumi Kogire, Shoichiro Sumi, Mitsutoshi Yun, Shiroh Futaki, Nobutaka Fujii, Haruaki Yajima, and Takayoshi Tobe</i>	1251
Perturbation of Intracellular pH by DIDS on Endocytosis of Transferrin and Iron Uptake in Rabbit Reticulocytes	<i>R. Y. Y. Chan and T. T. Loh</i>	1256
Alzheimer's Disease Brain Extract Stimulates the Survival of Cerebral Cortical Neurons from Neonatal Rats	<i>Yoko Uchida, Yasuo Ihara, and Masanori Tomonaga</i>	1263
Determination of Mechanisms of Myocardial Ischemic Injury by ³¹ P-MRS Effect of Cathecholamine on Ischemic Hearts	<i>H. Sakai, M. Yoshiyama, M. Teragaki, K. Takeuchi, T. Takeda, M. Ikata, M. Ishikawa, and I. Miura</i>	1268
Cloning of cDNA Encoding a New Peptide C-Terminal α-Amidating Enzyme Having a Putative Membrane-Spanning Domain from <i>Xenopus laevis</i> Skin	<i>Kazuhiro Ohsuye, Katsuhiko Kitano, Yayoi Wada, Kayoko Fuchimura, Shoji Tanaka, Kensaku Mizuno, and Hisayuki Matsuo</i>	1275
α-Blocker, Bunazosinhydrochloride Decreases Cytosolic Ca ²⁺ of Cultured Rat Aortic Smooth Muscle Cells	<i>H. Orimo, M. Watanabe, and Y. Ouchi</i>	1282
Mannose 6-Phosphate/Insulin-like Growth Factor II Receptor: Distinct Binding Sites for Mannose 6-Phosphate and Insulin-like Growth Factor II	<i>Thomas Braulke, Christa Causin, Abdul Waheed, Ulrich Junghans, Andrej Hasilik, Peter Maly, René E. Humbel, and Kurt von Figura</i>	1287
Reduction of Iodonitrotetrazolium Violet by Superoxide Radicals	<i>John J. Podcasy and Robert Wei</i>	1294
Expression of the Insulinoma Gene <i>rig</i> during Liver Regeneration and in Primary Cultured Hepatocytes	<i>Chiyoiko Inoue, Kazuhiko Igarashi, Motoo Kitagawa, Kimio Terazono, Shin Takasawa, Ken-ichi Obata, Kazushi Iwata, Hiroshi Yamamoto, and Hiroshi Okamoto</i>	1302
The Role of Protein Kinase C on Amylase Secretion from Rat Parotid Gland	<i>Hiromi Shimomura, Akane Terada, Yoshiaki Hashimoto, and Thomas R. Soderling</i>	1309

CONTENTS OF VOLUME 150

ERRATA

- Volume 148, Number 3, November 13, 1987: Michael J. Cronin, Tamie Malaska, and Charles Bakhit, "Human Relaxin Increases Cyclic AMP Levels in Cultured Anterior Pituitary Cells," pp. 1246-1251 1315
- Volume 148, Number 3, November 13, 1987: Anthony R. Mire-Sluis, A. Victor Hoffbrand, and R. Gitendra Wickremasinghe, "Evidence That Guanine-Nucleotide Binding Regulatory Proteins Couple Cell-Surface Receptors to the Breakdown of Inositol-Containing Lipids during T-Lymphocyte Mitogenesis," pp. 1223-1231 1315
- Author Index for Volume 150 1317
- The Subject Index for Volume 150 will appear as part of a cumulative index for the year 1988.

Information for Contributors

BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS is devoted to the rapid dissemination of timely and significant observations in the diverse fields of modern experimental biology. Manuscripts submitted should be so written as to emphasize clearly the novel aspects of the information reported.

Authors submitting a manuscript do so on the understanding that if it is accepted for publication, copyright in the article, including the right to reproduce the article in all forms and media, shall be assigned exclusively to the Publisher. The Publisher will not refuse any reasonable request by the author for permission to reproduce any of his or her contributions to the journal.

Original papers only will be considered. Manuscripts are accepted for review with the understanding that the same work has not been submitted to another Editor of this journal and also that it has not been published, that it is not under consideration for publication elsewhere, and that its submission for publication has been approved by all of the authors and by the institution where the work was carried out; further, that any person cited as a source of personal communications has approved such citation. Written authorization may be required at the Editor's discretion. Articles and any other material published in BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS represent the opinions of the author(s) and should not be construed to reflect the opinions of the Editor(s) and the Publisher.

Manuscripts in duplicate may be sent to any one of the editors whose names and addresses are listed on the inside front cover. To assist us in ensuring rapid processing of your article, please submit a signed photocopy of the copyright assignment form which appears as page 3 of this "Information" along with your manuscript. (This form will not be binding if your manuscript is not accepted for publication in BBRC.) *In the case of rejected manuscripts only one copy of the manuscript will be returned to the author.*

To ensure rapid and accurate publication, it is essential that manuscripts conform to the instructions which follow. Manuscripts which are not in accordance with these specifications may be returned.

Preparation of Manuscripts

Article length should not exceed 5 typewritten pages, using one-and-a-half (1½) spacing (W spacing) on 8.5 x 11-in. high-quality paper (the complete manuscript, including space occupied by figures and tables, should not exceed 8 pages).

Summary. Each article must be preceded by a brief summary, typed single-spaced, not exceeding 10 lines (approximately 100–150 words). This paragraph should adequately summarize the pertinent findings of the paper.

Typing. Articles are reproduced directly from the submitted manuscript as camera-ready copy. Manuscripts must therefore be typewritten on good quality white bond paper. A black silk or carbon typewriter ribbon should be used. Special care should be taken to ensure a sharp clean impression of letters throughout. Use of an electric typewriter is strongly recommended. Erasures should be avoided. Care must also be taken to avoid errors in spelling, word division, and punctuation. **No changes may be made in manuscripts after acceptance.**

Manuscripts should be 1½-spaced on one side of the sheet: **methods, references, footnotes, tables, and figure legends should be single-spaced.** Typing area of the page must be as close as possible to 6.5 in. wide and 9.5 in. long.

Symbols and Abbreviations defined in the IUPAC-IUB Document No. 1 (*Arch. Biochem. Biophys.* (1966) **115**, 1–12) may be used without definition. Use of all other abbreviations and symbols is to be avoided. When abbreviations are essential, they should be consistent with the form and style of the above document and **must be defined in a single footnote and typed on a separate page**, rather than in the text. Such abbreviations **must not** be used in the Summary.

Enzyme names should not be abbreviated except when the substrate has an approved abbreviation (e.g., ATPase). Use the Enzyme Commission ("EC") code number when available.

Isotopes should be styled following the recommendations of the IUB Commission of Editors of Biochemical Journals. The symbol of the isotope introduced should be placed in square brackets directly attached to the front of the name (e.g., [³²P]CMP). Note that the isotope number should only be used as a (superior) prefix to the atomic symbol, not to an abbreviation.

In the Methods section, authors should draw attention to any particular chemical or biological hazards that may be involved in carrying out the experiments described. Any relevant safety precautions should be described; if an accepted code of practice has been followed, a reference to the relevant standards should be given.

For further information regarding nomenclature authors are advised to consult the Instructions to Authors of the **Archives of Biochemistry and Biophysics** (1987) **252**, vii-xxv. Reprints are available from the Publisher.

Footnotes, references, tables, and figure legends should be typed single-spaced on separate pages.

Illustrations and Tables. **Do not attempt to insert figures, figure legends, or tables into the text.** This will be done by the Publisher.

All drawings should be clearly labeled in black ink in a manner suitable for direct reproduction (Leroy lettering size 120 or 140). Do not use press-on lettering; typewritten lettering is not acceptable.

Figures will be reduced to fit within the type area of the page (approximately 5 x 8 in.); the original drawings should be no larger than 8.5 x 11 in.

Glossy photographs of drawings are acceptable provided they are sharp, clear prints with an even *black* density. Illustrations in color can be accepted only if the authors defray the cost.

Mathematical or chemical symbols that cannot be typed should be inked in carefully in black. Structural formulas should be drawn in black ink.

Illustrations and tables should be submitted on separate sheets.

Page Numbers and Headings. Page numbers should be typed at the top of the page.

The title of the paper should be typed in capital letters near the top of the first page, with the name(s) and affiliation(s) of the author(s) typed just below. Headings within the article should be arranged according to their relative importance.

References to the literature should be cited by the number in parentheses in the text and listed in numerical order in a single-spaced typed list placed at the end of the manuscript. Abbreviations of journals should conform to those of *Chemical Abstracts Service Source Index*, 1985. Note the following examples.

1. Graan, T., and Ort, D. R. (1986) Arch. Biochem. Biophys. 248, 445-451.
2. Metzler, D. E. (1977) Biochemistry: The Chemical Reaction of Living Cells, p. 298. Academic Press, New York.
3. Rosenfeld, R. G., and Hintz, R. L. (1986) In The Receptors (P. M. Conn, Ed.), Vol. III, pp. 281-329. Academic Press, Orlando, FL.

Note that inclusive pagination must be given.

Acknowledgment of Receipt. Authors desiring acknowledgment of receipt of manuscript should enclose a stamped self-addressed card.

Reprints. Reprint order forms, with price lists, are sent to the authors immediately upon acceptance of their manuscript.

BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS

Manuscript Title _____

Authors _____

I hereby confirm the assignment of all copyrights in and to the manuscript named above in all forms and media to Academic Press effective if and when it is accepted for publication by Academic Press. (For U.S. government employee authors, this provision applies only to the extent to which copyright is transferable.) I also confirm that the manuscript contains no material the publication of which would violate any copyright or other personal or proprietary right of any person or entity, and I acknowledge that Academic Press is relying on this letter in publishing this manuscript.

Date

Signed

Name (and title if not author)

To be signed by at least one of the authors (who has obtained the assent of the others, if any). In the case of a "work made for hire" (a work prepared by an employee within the scope of his or her employment or commissioned as a work for hire under a written agreement), an authorized representative of the employer should sign.

Please note: Manuscripts cannot be processed for publication until the Publisher has received this signed form.

If the manuscript is not published by Academic Press, this letter will not take effect.

(Continued from previous page)

- Expression of the Insulinoma Gene *rig* during Liver Regeneration and in Primary
Cultured Hepatocytes *Chiyoiko Inoue, Kazuhiko Igarashi, Motoo Kitagawa,*
Kimio Terazono, Shin Takasawa, Ken-ichi Obata, Kazushi Iwata,
Hiroshi Yamamoto, and Hiroshi Okamoto 1302
- The Role of Protein Kinase C on Amylase Secretion from Rat Parotid Gland
Hiromi Shimomura, Akane Terada, Yoshiaki Hashimoto, and Thomas R. Soderling 1309

ERRATA

- Volume 148, Number 3, November 13, 1987: Michael J. Cronin, Tamie Malaska,
and Charles Bakhit, "Human Relaxin Increases Cyclic AMP Levels in
Cultured Anterior Pituitary Cells," pp. 1246-1251 1315
- Volume 148, Number 3, November 13, 1987: Anthony R. Mire-Sluis, A. Victor
Hoffbrand, and R. Gitendra Wickremasinghe, "Evidence That Guanine-
Nucleotide Binding Regulatory Proteins Couple Cell-Surface Receptors to
the Breakdown of Inositol-Containing Lipids during T-Lymphocyte
Mitogenesis," pp. 1223-1231 1315
- Author Index for Volume 150 1317
- The Subject Index for Volume 150 will appear as part of a cumulative index for the year 1988.

(Continued from inside back cover)

- Dissociation of *c-fos* from ODC Expression and Neuronal Differentiation in a PC12 Subline Stably Transfected with an Inducible N-ras Oncogene
Isabel Guerrero, Angel Pellicer, and David E. Burstein 1185
- 1,25-Dihydroxyvitamin D Stimulates Sodium-Dependent Phosphate Transport by Renal Outer Cortical Brush-Border Membrane Vesicles by Directly Affecting Membrane Fluidity
Makoto Suzuki, Yoshindo Kawaguchi, Mitsuo Momose, Takasi Morita, Keitarou Yokoyama, and Tadashi Miyahara 1193
- Identification of T-Kinin-Leu (T-Kinin-Containing Peptide) Released from T-Kininogen by Cathepsin D of Granulomatous Tissues in Rats
Wataru Sakamoto, Fumihiko Satoh, Shigeki Nagasawa, and Hiroshi Handa 1199
- Inhibition of Early Platelet-Derived Growth Factor Responses in BALB/c-3T3 Cells by Interferon
M. Zagari, J. R. Hepler, C. Harris, and B. Herman 1207
- ($\pm$)-*trans*-2-(3-Methoxy-5-methylsulfonyl-4-propoxyphenyl)-5-(3,4,5-trimethoxyphenyl) tetrahydrofuran (L-659,989), a Novel, Potent PAF Receptor Antagonist
Mitree M. Ponpipom, San-Bao Hwang, Thomas W. Doebber, John J. Acton, Alfred W. Alberts, Tesfaye Biftu, David R. Brooker, Robert L. Bugianesi, John C. Chabala, Nancy L. Gamble, Donald W. Graham, My-Hanh Lam, and Margaret S. Wu 1213
- RU 486 Stabilizes a High Molecular Weight Form of the Glucocorticoid Receptor Containing the 90K Non-steroid Binding Protein in Intact Thymus Cells
Philippe Lefebvre, Pierre Formstecher, Claude Richard, and Michel Dautrevaux 1221
- Protease Peptone Enhances Production of Tissue-Type Plasminogen Activator from Human Diploid Fibroblasts
Akio Hasegawa, Hitoshi Yamashita, Shuhei Kondo, Takao Kiyota, Hiroshi Hayashi, Hideo Yoshizaki, Akira Murakami, Masami Shiratsuchi, and Toshihito Mori 1230
- Cloning and Sequence Analysis of a cDNA for Lymphocyte Proliferation Potentiating Factor of Rabbit Polymorphonuclear Leukocytes: Identification as Rabbit Interleukin 1 β
Shunsuke Mori, Fumimasa Goto, Kumiko Goto, Susumu Ohkawara, Shuichiro Maeda, Kazunori Shimada, and Masaru Yoshinaga 1237
- Three- α -Helical Coiled-Coil, as a Proposed Model for a Thin Rod Segment of Bacteriophage T3 Tail Fibers
Sho Takahashi and Tatsuo Ooi 1244
- Effect of Synthetic Human Cholecystokinin-33 on Exocrine Pancrease
Ryuichiro Doi, Kazutomo Inoue, Masafumi Kogire, Shoichiro Sumi, Mitsutoshi Yun, Shiroh Futaki, Nobutaka Fujii, Haruaki Yajima, and Takayoshi Tobe 1251
- Perturbation of Intracellular pH by DIDS on Endocytosis of Transferrin and Iron Uptake in Rabbit Reticulocytes
R. Y. Y. Chan and T. T. Loh 1256
- Alzheimer's Disease Brain Extract Stimulates the Survival of Cerebral Cortical Neurons from Neonatal Rats
Yoko Uchida, Yasuo Ihara, and Masanori Tomonaga 1263
- Determination of Mechanisms of Myocardial Ischemic Injury by ^{31}P -MRS Effect of Cathecholamine on Ischemic Hearts
H. Sakai, M. Yoshiyama, M. Teragaki, K. Takeuchi, T. Takeda, M. Ikata, M. Ishikawa, and I. Miura 1268
- Cloning of cDNA Encoding a New Peptide C-Terminal α -Amidating Enzyme Having a Putative Membrane-Spanning Domain from *Xenopus laevis* Skin
Kazuhiro Ohsuye, Katsuhiko Kitano, Yayoi Wada, Kayoko Fuchimura, Shoji Tanaka, Kensaku Mizuno, and Hisayuki Matsuo 1275
- α -Blocker, Bunazosinhydrochloride Decreases Cytosolic Ca^{2+} of Cultured Rat Aortic Smooth Muscle Cells
H. Orimo, M. Watanabe, and Y. Ouchi 1282
- Mannose 6-Phosphate/Insulin-like Growth Factor II Receptor: Distinct Binding Sites for Mannose 6-Phosphate and Insulin-like Growth Factor II
Thomas Braulke, Christa Causin, Abdul Waheed, Ulrich Junghans, Andrej Hasilik, Peter Maly, René E. Humbel, and Kurt von Figura 1287
- Reduction of Iodonitrotetrazolium Violet by Superoxide Radicals
John J. Podcasy and Robert Wei 1294